



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/847,004	05/01/2001	R. Shawn Childress	14518	4809

7590 03/29/2004

Richard L. Catania
Scully, Scott, Murphy & Presser
400 Garden City Plaza
Garden City, NY 11530

EXAMINER

ROBERTSON, JEFFREY

ART UNIT PAPER NUMBER

1712

DATE MAILED: 03/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

35

Office Action Summary	Application No.	Applicant(s)	
	09/847,004	CHILDRRESS ET AL.	
	Examiner	Art Unit	
	Jeffrey B. Robertson	1712	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 January 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5,8 and 12 is/are rejected.
- 7) ☒ Claim(s) 6,7 and 9-11 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-5, 8, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chu et al. (U.S. Patent No. 4,481,364).

For claim 1, in column 3, lines 8-65, Chu sets forth a reaction where a hydridoalkoxysilane is hydrosilylated with an allyl amine to form aminosilanes with a platinum catalyst. Here, Chu teaches that R^4 may be methyl and that R^2 and R^3 are either alkyl or hydrogen. For claims 2-4, in column 3, lines 62-65, Chu teaches suitable amines, which include methallylamine and secondary amines such as allylaniline (N-phenylallylamine). The use of methallylamines results in the T group where $u=0$. The use of allylaniline results in secondary amino groups where R^1 is a phenyl group. Note that in Example 14, column 7, lines 45-57, Chu teaches a working example using allylaniline. For claims 2 and 4, in column 3, lines 34-40, Chu teaches that the hydridoalkoxysilane includes triethoxysilane. For claims 5 and 8, in column 3, lines 66-68, Chu discloses that the ratio of silane to amine can vary from 1.5:1 to 1:1.5, which is included in the range set forth by applicant. In column 4, lines 21-23, Chu teaches that the amount of platinum catalyst is 10-20 parts per million, which falls within the range claimed by applicant. In column 4, lines 30-31, Chu teaches the use of soluble

Art Unit: 1712

complexes of chloroplatinic acid. For claim 12, in column 4, lines 5-8, Chu teaches that the reaction temperature is in the range of 110° C to 210°C.

For claims 1-5, 8 and 12, Chu fails to expressly teach the use of secondary methallylamines in the reaction process. However, it would have been obvious to one of ordinary skill in the art at the time of the invention to use secondary methallylamines in the reaction, given the express teaching by Chu in column 3, lines 59-60, that R⁴ may be a methyl group, and the use of secondary amines such as allylaniline in Example 14.

Allowable Subject Matter

3. Claims 6, 7, and 9-11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

For claims 6 and 7, Chu does not teach that the reaction is performed at atmospheric pressure. In fact in column 2, lines 53-61, Chu discloses that pressure is one of the factors that contributes to the improved process. For claim 9, since all of the reactants are added into the Parr bomb simultaneously, the secondary methallylamine cannot be added to the mixture of catalyst and hydridosilane. For claims 10 and 11, Chu does not disclose that an alcohol is added to the hydrosilylation product or that there is a purification step.

Response to Arguments

4. Applicant's arguments with respect to claims 1-5, 8, and 12 have been considered but are not persuasive.

Art Unit: 1712

Applicant argues that the secondary methallylamines of the instant application are aliphatic amine compounds while the examples set forth by the Chu et al. reference are aromatic amine compounds. Applicant argues that the chemical properties of aromatic compounds and aliphatic compounds are different, and therefore the reasoning used by the examiner is flawed. Applicant also argues that since the subject of the invention is dealing with catalysis, that the substitution of aromatic compounds for the aliphatic starting materials of the instant application is significant and the outcome could not be predicted.

In response, the examiner disagrees with the characterization of the secondary methallylamine compounds as aliphatic amine compounds in the instant application. There is no such limitation in claim 1. Furthermore, claims 2 and 4 of the instant application set forth aromatic starting compounds because in the formula of the secondary methallylamine in claim 2, R^1 can be an aryl, alkaryl, or aralkyl, and in claim 4, N-phenylmethallylamine. Therefore, applicant's amine compounds are not limited to aliphatic amines. In addition, although Chu et al. specifically teaches an aromatic amine in the examples, it is noted that in column 3, lines 40-65, R^2 and R^3 can also be aliphatic monovalent hydrocarbon groups.

Regarding applicant's argument about the unpredictability of catalysis, it is noted that Chu et al. teaches both aromatic and non-aromatic secondary amines (as does applicant). One of ordinary skill in the art would have expected the processes of Chu et al. to work for any of the amines falling within the definition of Chu et al. set forth in

Art Unit: 1712

column 3, which includes both non-aromatic and aromatic substituents on the nitrogen atoms of methallylamine. For these reasons, the rejection set forth above is continued.

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

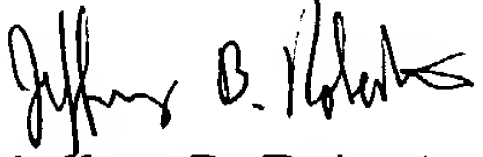
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey B. Robertson whose telephone number is (571) 272-1092. The examiner can normally be reached on Mon-Fri 7:00-3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on (571) 272-1119. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 1712

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Jeffrey B. Robertson
Primary Examiner
Art Unit 1712

JBR